

TECHNIQUES FOR EMOTION DETECTION AND CONTENT DELIVERY

BACKGROUND

[0001] Users of computing devices spend increasing amounts of time browsing streams of posts on social networks, news articles, video, audio, or other digital content. The amount of information available to users is also increasing. Thus, a need exists for delivering content to a user that may be of current interest to them. For example, a user's interests may be determined based upon their current emotional state. Computing devices such as laptops, mobile phones, and tablets increasingly include at least one, and often more than one, imaging component, such as a digital camera. Some devices may include a front-facing camera that is positioned on the same side of the device as a display. Thus, during normal operation, a user may be looking towards the imaging component. However, current content delivery systems typically do not utilize passive imaging information. Thus, a need exists for a content delivery solution that takes advantage of available passive imaging data to provide content to a user with improved relevancy.

SUMMARY

[0002] The following presents a simplified summary in order to provide a basic understanding of some novel embodiments described herein. This summary is not an extensive overview, and it is not intended to identify key/critical elements or to delineate the scope thereof. Its sole purpose is to present some concepts in a simplified form as a prelude to the more detailed description that is presented later.

[0003] Various embodiments are directed to techniques for emotion detection and content delivery. In one embodiment, for example, an emotion detection component may identify at least one type of emotion associated with at least one detected emotion characteristic. A storage component may store the identified emotion type. An application programming interface (API) component may receive a request from one or more applications for emotion type and, in response to the request, return the identified emotion type. The one or more applications may identify content for display based upon the identified emotion type. The identification of content for display by the one or more applications based upon the identified emotion type may include searching among a plurality of content items, each content item being associated with one or more emotion type. In addition, a calibration component may be configured to receive a request to calibrate emotion detection and present a type of emotion to a user. The calibration component may utilize the imaging component to detect emotion characteristics and store an association between the presented type of emotion and the detected emotion characteristics in the storage component. Other embodiments are described and claimed.

[0004] To the accomplishment of the foregoing and related ends, certain illustrative aspects are described herein in connection with the following description and the annexed drawings. These aspects are indicative of the various ways in which the principles disclosed herein can be practiced and all aspects and equivalents thereof are intended to be within the scope of the claimed subject matter. Other advantages and novel features will become apparent from the following detailed description when considered in conjunction with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] FIG. 1 illustrates an embodiment of a system.

[0006] FIG. 2 illustrates a data flow.

[0007] FIG. 3 illustrates a logic flow according to an embodiment.

[0008] FIG. 4 illustrates a logic flow according to an embodiment.

[0009] FIG. 5 illustrates a logic flow according to an embodiment.

[0010] FIG. 6 illustrates a logic flow according to an embodiment.

[0011] FIG. 7 illustrates an embodiment of a centralized system according to an embodiment.

[0012] FIG. 8 illustrates an embodiment of a distributed system according to an embodiment.

[0013] FIG. 9 illustrates an embodiment of a computing architecture.

[0014] FIG. 10 illustrates an embodiment of a communications architecture.

DETAILED DESCRIPTION

[0015] Various embodiments are directed to techniques for emotion detection and content delivery. In one embodiment, for example, an apparatus, such as a mobile device, may comprise a processor circuit on a device and a storage component configured to store types of emotions. An imaging component may be operative on the processor circuit to produce an image using an imaging device. An emotion detection component may be operative on the processor circuit to request the image from the imaging component, detect emotion characteristics from the image, and identify at least one type of emotion from the storage component associated with the detected emotion characteristics. Once detected and identified, an emotion type may be stored, either temporarily for a defined period of time, or permanently in a user profile.

[0016] An application programming interface (API) component may be operative on the processor circuit to receive requests for emotion types and, in response to the requests, return a type of emotion. In an embodiment, the apparatus may include one or more applications configured to access the API component. The API component may include one or more functions that may be accessed by applications, such as a function that delivers a most recently detected emotion type. The one or more applications may make requests to the API component for the most recently detected emotion type and display content based upon a received emotion type, for example. In this manner, content delivered to a user may be determined based, in part, on a detected emotion associated with the user, thus improving the relevancy of delivered content. Further, an application may maintain a profile for a user in which emotion information, such as emotion type, may be associated with currently displayed content. In this manner, the application may predictively deliver content to a user based upon detected emotion type.

[0017] Content delivery may be performed by an application stored on a device, such as a social networking application, or using a browser application, which may access content from the internet. Content may include, but is not limited to, social networking posts, photos, videos, audio, games, advertisements, or applications made available online or through an application store on a device. Of course, one of skill in the art will readily recognize that any digital content available on a device may be used.